

Remarks:

Reconsideration of the application is respectfully requested.

Claims 1 - 33 are presently pending in the application.

Claims 1, 15 and 32 have been amended.

Applicants gratefully acknowledge that item 6 of the above-identified Office Action indicated that claims 3, 4, 11, 12, 17, 18, 25, 26 and 33 would be allowable if rewritten in independent form including all of the limitations of the base claims from which those claims depend and any intervening claims.

In item 3 of the Office Action, it was stated that:

With respect to claims 1, 15, and 32, the language used by Applicant merely suggests or makes optional those features described as "capable", "operable", or "possibly"; such language does not require steps to be performed nor limits the claim to a particular structure.

Applicants' independent claims 1, 15 and 32, recited, among other limitations, that a second symbol rate "possibly" differed from a predetermined first symbol rate. Applicants' claims 1, 15 and 32 have been amended to delete the word "possibly" so as to better clarify that, among other limitations, the second symbol rate is different from the predetermined first symbol rate. As such, it is believed that

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the above limitation of Applicants' claims 1, 15 and 32 needs to be given patentable weight, and that those claims should be reviewed in view of the cited art, accordingly.

It is believed that Applicants' specification and claims meet the requirements of 35 U.S.C. § 112, second paragraph.

Further, in item 4 of the Office Action, claims 1 - 2, 8 - 10, 13 - 16, 22 - 24, and 27 - 32 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U. S. Patent No. 6,958,987 to Herring et al ("HERRING").

In item 5 of the Office Action, claims 5 - 7, and 19 - 21 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over HERRING in view of U. S. Patent No. 6,532,228 to Burgess et al ("BURGESS").

Applicants respectfully traverse the above rejections.

More particularly, Applicants' claimed invention relates to a data transmission system (claims 1 and 32) or method (claim 15) including a base station and at least one mobile station.

In the present invention, data packets are interchanged between the base station and the mobile stations by a radio using a time slot method. However, one of the primary

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innovative features of Applicants' claimed invention is that a first part of a data packet and a second part of the data packet are transmitted at different symbol rates. For example, Applicants' claim 1 recites, among other limitations:

first means for transmitting a first part of a data packet at a predetermined first symbol rate and at a first transmission frequency;

second means for transmitting a second part of the data packet at a second symbol rate and at a second transmission frequency; and

said second symbol rate differing from said predetermined first symbol rate. [emphasis added by Applicants]

Applicants' independent claims 15 and 32 recite similar limitations, among others.

As such, among other things, all of Applicants' claims require that the symbol rate at which a first part of the data packet is transmitted is different from a symbol rate at which the second part of the data packet is transmitted. This is neither taught, nor suggested, by the cited HERRING and BURGESS references.

Rather, the HERRING reference, cited against all of Applicants' independent claims, discloses a data transmission system which is based on a time slot method. See the Abstract of HERRING. Fig. 8 of HERRING shows various data packets that

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can be transmitted in the system of HERRING during a time slot. As described in col. 2 of HERRING, lines 18 - 24, HERRING requires each time slot to include a fixed number of bits (i.e., 480 bits), set forth as follows:

Each time slot comprises 480 bits with a 32-bit preamble for synchronization, 388 bits for data and 60 bits for guard time. The 388 data bits are further divided into an A-field, a B-field and 4 parity bits for error detection. The A-field comprises an 8-bit header, 40 bits of control information and 16 cyclic redundancy check (CRC) bits while the B-field provides 320 bits of data. [emphasis added by Applicants]

As such, the data packets transferred in HERRING during each time slot are made up of 420 transmitted bits and a guard interval of 60 additional bits.

Page 3 of the Office Action alleged that Applicants' former claim limitation of the "second symbol rate possibly differing from" the "predetermined first symbol rate" was allegedly disclosed by Fig. 8 of HERRING, col. 2 of HERRING, lines 5 - 34 and col. 8 of HERRING, lines 19 - 55. Applicants respectfully disagree.

At the time of the Office Action, it was noted on page 2 of the Office Action that the "possibly" language made the claim limitation into an optional feature and did not require the step to be performed or limit the claim to a particular structure. Applicants' have since amended the independent

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claims to remove the recitation of "possibly", thus requiring that the limitation of the "second symbol rate differing from" the "predetermined first symbol rate" must be given patentable weight and must also be present in HERRING, for HERRING to anticipate Applicants' claims. However, as stated above, HERRING neither teaches, nor suggests the "second symbol rate differing from" the "predetermined first symbol rate", as required by Applicants' claims.

More particularly, HERRING discloses in col. 8 of HERRING, lines 19 - 39 that the data transmission system may be operated using a "so-called multi-slot operation". HERRING further describes this "so-called multi-slot operation" as two adjacent time slots (i.e., "double slots" per col. 8 of HERRING, line 25), that share a single set of synchronization bits, signaling bits, CRC (cyclic redundancy check) bits and optionally, FECC (forward error correction code) bits. See col. 8 of HERRING, lines 25 - 27. Consequently, in HERRING, during the two consecutive time slots, these bits need to only be transmitted once. Thus HERRING specifically teaches that, since the synchronization, signaling, CRC and FECC bits of HERRING consume up to 180 of the 420 bits allocated to a single time slot, the double slot can contain more payload data bits than two time slots that do not share the synchronization, signaling CRC and FECC bits. See, col. 8 of HERRING, lines 27

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- 35. As a result, HERRING discloses that the transfer rate of the payload data bits is increased when averaged over two time slots.

However, Applicants' claim 1 does not recite that the transfer rate of the payload data bits of the first part of a data packet differs from the transfer rate of the payload data bits of the second part. As described above, Applicants' independent claims recite, among other limitations, that the symbol rate of the second part differs from the symbol rate of the first part. Both parts of Applicants data packets may contain all kinds of data, the first and second parts are not limited to payload data. Such a feature is not disclosed in HERRING. Further, according to HERRING, every time slot contains 420 bits, no matter whether synchronization, signaling, CRC and FECC bits or payload data bits are transmitted. This means that, in HERRING, the symbol rate is always constant. As such, there is no teaching or suggestion in HERRING to implement Applicants' claimed invention, wherein the "second symbol rate" differs from the "predetermined first symbol rate". HERRING, in fact, teaches away from Applicants' claimed differing symbol rates, by disclosing that the symbol rate in HERRING is constant.

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The **BURGESS** reference cited in combination with **HERRING** against certain of Applicants' dependent claims, does nothing to cure the above disclosed deficiencies of the **HERRING** reference.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 1, 15 and 32. Claims 1, 15 and 32 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1, 15 or 32.

Finally, Applicants appreciatively acknowledge the Examiner's statement that claims 3, 4, 11, 12, 17, 18, 25, 26 and 33 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, Applicants respectfully believe that rewriting of claims 3, 4, 11, 12, 17, 18, 25, 26 and 33 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 1 - 33 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a


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telephone call so that, if possible, patentable language can  
be worked out.

If an extension of time for this paper is required, petition  
for extension is herewith made.

Please charge any fees that might be due with respect to  
Sections 1.16 and 1.17 to the Deposit Account of Lerner  
Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,



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